

**BUREAU OF HIGHWAYS  
REQUEST FOR PROPOSAL  
for  
QUALIFICATIONS BASED SELECTION FOR PREQUALIFIED SERVICES**

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is currently prequalified for this type of work and you are interested in providing services, please indicate your interest by submitting a Proposal. The Proposal must be submitted in accordance with the latest "Vendor Selection Guidelines for Service Contracts", available on the MDOT website.

For efficiency sake, we are asking that the vendor firm provide 3 paper copies of the Proposal to the MDOT project manager named in the attached scope of services.

These copies must be received by 4:00 p.m. on November 22, 2004. Fax and electronic copies are not acceptable.

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In addition, provide one unbound copy to:

Regular Mail:

Secretary, Operations Contract Support  
Michigan Department of Transportation  
P.O. Box 30050  
Lansing, MI 48909

OR

Overnight Mail:

Secretary, Operations Contract Support  
Michigan Department of Transportation  
425 W. Ottawa  
Lansing, MI 48933

This copy is to be received within three working days after the due date and time specified above. Please do not deliver in person.

Any questions relative to the scope of services must be submitted by e-mail to the MDOT project manager. Any questions must be asked at least three working days prior to the due date and time specified above. All questions and their answers will be placed on the MDOT website as soon as possible after receipt of the questions. The names of vendors submitting questions will not be disclosed.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the

recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

The selection team will review the information submitted and will select the firm considered most qualified to perform the engineering services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

**The maximum allowable pages for your proposal shall follow the guidelines detailed in Exhibit F of the Vendor Selection Guidelines (October 2004) for \$25,000 to \$100,000.**

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

The scope of services is attached to this solicitation.

**SCOPE OF SERVICES  
FOR  
CONSULTANT CONSTRUCTION INSPECTION, TESTING, & STAKING SERVICES**

**SERVICE DESCRIPTION/PROJECT ENGINEER MANAGER DESIGNATION:**

**General Description of Work:**

The Consultant will provide, to the satisfaction of the Department, “as-needed” testing and inspection services in the areas of bituminous construction, onsite moisture and density, and Portland cement concrete construction, as requested by the Project Engineer Manager. The Consultant may be asked to assist, on an “as-needed” basis, in staking and/or quality control of contractor staking; and should therefore possess the necessary skills, equipment, and staff required to perform such work.

This work includes, but is not limited to:

- Perform Quality Control and Quality Assurance Testing and Reporting, including, but not limited to, on site moisture and density testing and Portland cement concrete construction, in accordance with the MDOT Materials Sampling Guide and the Density Control Handbook.
- Identify and locate bituminous core locations as described in the Special Provision "Furnishing and Placing Superpave Hot Mix Asphalt Mixture (With Sampling Behind the Paver)." Observe coring operation by the contractor and take immediate possession of the cores.
- Collect the hot mix asphalt Quality Assurance samples from behind the paver as described in the Special Provision "Furnishing and Placing Superpave Hot Mix Asphalt Mixture (With Sampling Behind the Paver)"
- Perform ride quality verification in conjunction with the contractor's ride quality testing by determining the acceptability of the contractor's Ride Quality Measurement Plan, verifying and documenting the calibration of the contractor's ride quality equipment prior to each test day, review the contractor's limits for Ride -Quality Measurement, watch the contractor perform each initial and final ride quality test, take possession of and review the ride quality tape after each run, verify the contractor's layout of bump grinding areas, and review and interpret the final ride quality payment log.
- Transportation of bituminous mixtures and core samples, as well as all other sampled materials, from the job site to the Region central bituminous laboratory, Muskegon TSC, or other designated drop-off site as requested by the Project Engineer Manager.
- Assist MDOT personnel on an “as-needed” basis in preliminary staking, construction staking, and/or quality control of contractor staking.
- Completion of all paperwork necessary for the project files.

**This Scope of Services is for use on the following Project(s):**

**C.S. 62015  
J.N. 56914A**

Project's Location: M-20; Baseline Rd N to 8 Mile Rd, Newaygo County.

Project Description: Crush & Shape

Estimated Project Cost: \$1,891,000

Estimated Project Start Date: April 2005

Estimated Project Completion Date: June 2005

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**C.S. 61012  
J.N. 79069A**

Project's Location: M-120; over Markle Drain, Muskegon County.

Project Description: Structure Replacement

Estimated Project Cost: \$837,000

Estimated Project Start Date: August 2005

Estimated Completion Date of the Project: November 2005

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**C.S. 61153  
J.N. 55610A**

Project's Location: US-31BR, over Muskegon River (B01 of 61153), Muskegon County.

Project Description: Superstructure Replace, Substructure Repair

Estimated Project Cost: \$1,596,000

Estimated Project Start Date: July 2005

Estimated Completion Date of the Project: October 2005

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**C.S. 62022**  
**J.N. 78471A**

Project's Location: M-82; at 64<sup>th</sup> Street, Newaygo County.

Project Description: Culvert Replacement

Estimated Project Cost: \$454,000

Estimated Project Start Date: July 2005

Estimated Completion Date of the Project: September 2005

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**C.S. 70081, 70014, 70016**  
**J.N. 60573A**

Project's Location: M-104; US-31 easterly to Lake Street, & Ferrysburg Park-n-Ride, Ottawa County.

Project Description: HMA Crack Sealing, Conc. Crack and Joint Sealing and Repair, Coldmilling and  
HMA Resurfacing.

Estimated Project Cost: \$1,342,000

Estimated Project Start Date: September 2005

Estimated Completion Date of the Project: October 2005

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**C.S. 61075, 64014**  
**J.N. 60430A**

Project's Location: US-31; Fruitvale Road north to Winston Road, Muskegon & Oceana Counties.

Project Description: Single Course HMA Resurfacing with misc. Concrete Jnt Repairs.

Estimated Project Cost: \$1,920,000

Estimated Project Start Date: May 2005

Estimated Completion Date of the Project: July 2005

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**C.S. 62031, 64012, 64016**  
**J.N. 79580A**

Project's Location: M-37; White Cloud South City Limits, Newaygo County.  
US-31BR Pentwater; Oceana Drive north to Longbridge Road, Oceana County.  
US-31BR Hart; US-31 east to State Street, then north to Johnson Street, Oceana County.

Project Description: HMA Crack Seal and Concrete Crack/Joint Sealing and Repairs.

Estimated Project Cost: \$1,013,000

Estimated Project Start Date: April 2005

Estimated Completion Date of the Project: July 2005

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**C.S. 61151, 61153, 61075**  
**J.N. 79603A**

Project's Location: US-31BR Muskegon; US-31 north to Pine Street, Muskegon County.  
US-31; C&O RR Bridge north to Colby Road, Muskegon County.

Project Description: HMA Crack Seal and Concrete Crack/Joint Sealing and Repairs.

Estimated Project Cost: \$520,000

Estimated Project Start Date: April 2005

Estimated Completion Date of the Project: June 2005

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**C.S. 61073**  
**J.N. 79522A**

Project's Location: US-31BR Montague; Stanton Road north to Fruitvale Road, Muskegon County.

Project Description: HMA Coldmilling & Single Course Resurfacing w/ Shoulder Trenching.

Estimated Project Cost: \$384,000

Estimated Project Start Date: June 2005

Estimated Completion Date of the Project: September 2005

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**C.S. 61075**  
**J.N. (Not Yet Assigned)**

Project's Location: US-31; at Russell Road NB Exit, Muskegon County.

Project Description: Ramp Widening

Estimated Project Cost: \$610,000

Estimated Project Start Date: August 2005

Estimated Completion Date of the Project: October 2005

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**C.S. 70081**  
**J.N. (Not Yet Assigned)**

Project's Location: M-104; at Krueger Street, Ottawa County.

Project Description: Addition of Right Turn Lane.

Estimated Project Cost: \$135,000

Estimated Project Start Date: To be scheduled.

Estimated Completion Date of the Project: To be scheduled

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| <b>Primary Prequalification Classification:</b>   | <b>Bituminous Pavement Inspection; or<br/>Bituminous Plant Inspection &amp; Testing<br/>(either is acceptable)</b>  |
| <b>Secondary Prequalification Classification:</b> | <b>Aggregate Inspection &amp; Testing<br/>Density Inspection &amp; Testing<br/>Portland Cement Concrete Inspection &amp; Testing<br/>Construction Staking</b> |
| <b>DBE Requirement:</b>                           | <b>0.0%</b>   |
| <b>Estimated Service Start Date:</b>              | <b>February 2005</b>  |
| <b>Estimated Service Completion Date:</b>         | <b>March 2006</b>   |
| <b>Estimated Service Hours:</b>                   | <b>850 Hours</b>  |

**MDOT Project Manager:**  
Gregg Zack, P.E.  
2225 Olthoff Drive  
Muskegon, MI 49444-2644

Phone: 231-777-3451  
Fax: 231-777-3621

Full-time services will not be required for this project at all times. This contract is for "as-needed" services, based on the intermittent needs of the project office for inspection, testing, and/or staking personnel. The above service hours are estimated; as such, the Department reserves the right to vary these hours as required to complete the necessary inspection, testing, and/or staking services. There is no guarantee that Consultant services will be required on this project, or that the total hours of service will match those estimates included within this scope. The Consultant's point of contact will be contacted with the requests for staff. Every attempt will be made to submit requests and schedule at least one week prior to the need for personnel, however it is expected that any requests made will be complied with within a 24-48 hour period. If the consultant is unable to fulfill the request, MDOT may utilize a secondary consultant for the services.

The consultant inspector(s), tester(s), and/or staker(s) will report and be directly responsible to the Project Manager who is in responsible charge of the project construction. Work hours and assignments will be given to the consultant inspector(s), tester(s), and/or staker(s) by the Project Manager or other MDOT personnel from this office. The consultant inspector(s), tester(s), and/or staker(s) will cooperate with the senior level MDOT Technicians and above to ensure that adequate inspection, testing, and/or staking services are provided.

The Consultant shall contact the Project Engineer Manager prior to beginning any work on this Project.

**GENERAL:**

- A. This Scope of Services consists of performing to the satisfaction of the Department, those inspection, testing, and/or staking services described herein consistent with applicable professional standards.
- B. The Consultant shall furnish all services and labor necessary to conduct and complete the inspection, testing, and/or staking services described herein. The Consultant shall also furnish materials, equipment, supplies, and incidentals necessary to perform the Services (other than those designated in writing to be furnished by the Department), and check and/or test them prior to use in carrying out this work.
- C. The Consultant's principal contact with the Department shall be through the designated Project Manager.
- D. The Services described herein are financed with public funds. The Consultant shall comply with applicable Federal and State laws, rules, and regulations. The Consultant shall perform field operations in accordance with both MDOT and MIOSHA regulations and accepted safety practices.
- E. At the request of the Department, the Consultant, during the progress of the Services, shall furnish information or data relating to the Services described herein and may be required by the Department to enable it to carry out or to proceed with related phases of the Project not described herein, or which may be necessary to enable the Department to furnish information to the Consultant upon which to proceed with further Services.
- F. The Consultant agrees to demonstrate knowledge of, and performance in compliance with, the standard construction practices of the Department; the Project-specific construction contracts, proposal, and plans; the Standard Specifications for Construction and applicable publications referenced within; the Michigan Construction Manual; the MDOT Materials Sampling Guide; the



Density Control Handbook; the Materials Quality Assurance Procedures Manual; the MDEQ Soil Erosion and Sedimentation Control Manual; and any other references, guidelines, and procedures manuals needed to carry out the work described herein in an appropriate manner.

- G. The Consultant shall notify the Project Engineer Manager, in writing, prior to any personnel changes from those specified in the Consultant's original approved proposal. Any personnel substitutions are subject to review and approval of the Project Manager.

#### **GENERAL DESCRIPTION OF INSPECTION, TESTING, & STAKING SERVICES:**

The Consultant agrees to provide, to the satisfaction of the Department, bituminous core inspection and bituminous sampling services, as well as on site moisture and density testing/reporting and Portland cement concrete construction QA/QC testing/reporting. Reporting, measurement, computation, and documentation requirements directed by the Project Manager for the aggregate and bituminous portions of the project and/or referenced in the Specifications, Plans, Proposal, the Michigan Construction Manual, the MDOT Materials Sampling Guide, the Density Control Handbook, and all other applicable references, guidelines, and procedures manuals and associated with this Construction Inspection and Testing Services work is also included. The Consultant may be asked to assist, on an "as-needed" basis, in staking and/or quality control of contractor staking; and should therefore possess the necessary skills, equipment, and staff required to perform such work.

#### **INSPECTION, TESTING, & STAKING SERVICES TO BE PERFORMED BY THE CONSULTANT:**

##### **A. For Project Administration, the Consultant shall:**

1. **Inspector:** Perform as the Inspector for the Project consistent with the Department's practices and in accordance with the Specifications, Plans, Proposal, the Michigan Construction Manual, the Materials Sampling Guide, the Density Control Handbook, and all other applicable references, guidelines, and/or procedures manuals. The Inspector assigned this Project shall be technically qualified and experienced to perform the Services required under the Agreement in a timely manner to avoid delay to the Construction Contractor.
2. The Consultant will provide the necessary personnel to adequately perform the requirements of this Agreement, and that his/her employee will possess the experience, knowledge, and character to qualify him/her for the particular duties he/she is to perform.
3. **Staking:** As requested, perform all [or any portion of] staking in accordance with Department standards, including, but not limited to, all staking to be performed by the Engineer and the Contractor as indicated in SP104(A) Contractor Staking, to ensure accuracy and compliance with the contract documents. Resolve any plan errors, discrepancies or omissions identified by the Department or Contractor and notify the Project Engineer Manager.
4. **Progress:** Keep daily diaries, sketches, logs, and records consistent with Department practice as may be needed to record the Contractor's progress.
5. **Changes:** Notify the Project Manager immediately of any unanticipated Project conditions.

6. **Staff Reductions:** Withdraw any personnel or halt any services no longer required, at the request of the Department, or within a reasonable time after the lack of need becomes apparent to the Consultant or the Project Manager.
7. **Consultant Deliverables:** Collect, properly label or identify, and deliver to the Department all original diaries, logs, notebooks, accounts, records, reports, other documents, and Project files prepared by the Consultant in the performance of the Agreement, upon completion or termination of the Agreement. Return, upon completion or termination of the Agreement, Specifications, Manuals, guides, written instructions, construction contracts and plans, unused forms, and any other documents and materials furnished by the Department. The Consultant may be responsible for replacing lost documents or materials at a fair and reasonable price.

**B. For Project Inspection, the Consultant shall:**

1. **Ongoing Inspection:** Provide inspection of Contractor field construction work, provide quality control, and confirm substantial conformance with the Specifications, Plans, and Proposal. Arrange for non-compliance work to be made whole by the Contractor. Inform the Project Engineer Manager of non-compliance work and trends toward borderline compliance.
2. The Consultant shall furnish necessary equipment needed to carry out the inspection and testing services.
3. The inspector shall have a cellular phone, but the phone can not be charged as a direct expense to the project.
4. The inspector shall provide a laptop computer (or equivalent) with Field Manager and/or Field Book software and produce daily inspection reports in this format. The inspector shall deliver inspection reports to the Project Engineer Manager's representative daily.

**C. For Quality Control Testing and Reporting, the Consultant shall:**

1. **Material Testing:** Sample and/or test materials (except off-site aggregates, concrete cylinder breaks, and bituminous plant testing) to be incorporated in the work, including but not limited to, concrete quality assurance testing, on-site aggregates, behind the paver bituminous sampling and core locations, and density testing and reporting, according to the Materials Sampling Guide and the Density Control Handbook, and reject Contractor's work and materials not meeting the Specifications, Plans, Proposal, the Michigan Construction Manual, Materials Quality Assurance Manual, and all other applicable references, guidelines, and procedures manuals. Determine the acceptability of materials found to be in non-compliance. Inform the Project Engineer Manager of non-compliance work and trends toward borderline compliance.

Acceptance samples, tests, and reporting procedures will conform to the Specifications, Proposal, MDOT Materials Source Guide and other applicable references, guidelines, and procedures manuals prescribed by the Department.

2. **Material Certification:** Make certain that acceptable test reports and material certifications from the

supplier have been received, prior to the incorporation of materials in the work, for materials tested off the Project site.

3. **Materials Reports:** Submit materials test reports (including, but not limited to Moisture and Density 582B, Inspector's Report of Concrete Placed 1174A, Aggregate Inspection Reports 1900 & 1901, Bituminous QA reports, and Concrete QA reports, etc) according to the distribution list on a daily basis, within one work day following the testing. The efficiency of the consultant in getting the "Moisture and Density Determination, Nuclear Method", Form 582B, copy to the Lansing, Density Technology Unit, 8885 Ricks Road, Lansing Mich 48909 will be measured by that unit and reported to the Project Engineer Manager.
4. **Testing Personnel:** For aggregate, concrete, density, and bituminous testing, utilize only personnel certified according to current Department requirements. Personnel will be certified on all projects (not just NHS projects).

The concrete testing inspector will be certified as a Concrete Technician Michigan Level I through a program certified by Michigan Concrete Association Board of Examiners or the Michigan Concrete Paving Association.

Any inspector involved in sampling or testing of Hot Mix Asphalt must be a Michigan Qualified Bituminous QC/QA Technician.

Any inspector performing sampling or testing of aggregates must be a current Michigan Certified Aggregate Technician.

Any person performing density testing or handling of nuclear density testing equipment must have completed the Michigan Density Technology Certification Program and successfully completed radiation safety training.

The Consultant and any sub-consultant contracted by the Department to perform density testing services that use equipment regulated by the Nuclear Regulatory Commission (NRC) Shall:

- a. Possess a valid license issued by the NRC, or recognized Agreement State, for ownership and use of sealed sources contained within portable nuclear density gauges.
- b. Provide the Radiation Safety Officer (RSO) of the Department with a copy of the aforementioned license.
- c. Comply with all rules and regulations set forth by Titles 10 (Energy) and 49 (Transportation) of the Code of Federal Regulations.

Failure of any of the above will be found in noncompliance with the contract.

5. **Density Gauge:** The inspector will provide a Troxler Density Gauge and comply with all requirements related to the use of this gauge established by the Nuclear Regulatory Commission and MDOT. This gauge should be calibrated to meet MDOT requirements.

**D. For Measurement, Computation, Documentation, and Record-keeping, the consultant shall:**

1. **Reports-Consultant Generated:** Prepare such periodic, intermediate and final reports and records as

may be required by the Department and as are applicable to the Project, which may include, but are not limited to:

- a. Moisture and Density Determination Reports, Form 582BM
  - b. Keep daily diaries, sketches, logs, and records consistent with Department practice as may be needed to record the Contractor's progress.
  - c. Inspector's Report of Concrete Placed (Form 1174A-M)
  - d. Mechanical Analysis, (Form 1901)
  - e. Other records and/or reports as required for the individual Project by the Project Manager and/or as required by Specifications, Plans, Proposal, the Michigan Construction Manual, the MDOT Materials Sampling Guide, and all other applicable references, guidelines, and/or procedures manuals.
2. **Finalizing Project Documentation:** The Consultant shall assist the department in final field measuring applicable items of work and prepare final summaries for applicable items of work.
  3. The consultant will report, measure, compute, and document inspection and/or testing work in accordance with the Specifications, Plans, Proposal, MDOT Materials Sampling Guide, the Density Control Handbook, and other applicable references, guidelines, and procedures manuals prescribed by the Department.

**SERVICES TO BE PERFORMED BY THE DEPARTMENT:**

- A. The Project Manager shall furnish to the Consultant Project-specific construction contracts, proposals, plans, plan revisions, written instructions, notice of meetings with the Contractor or other parties related to construction of the project and other information and/or data as deemed necessary by the Project Manager for the Services required herein.
- B. The Department shall furnish concrete cylinder breaks, off-site aggregate testing, off-site inspections and tests of cement and bituminous mixture designs, and any other materials customarily tested in the Department laboratories with its own forces or by statewide contracts. The customary testing is described in the Materials Quality Assurance Manual with exceptions noted within the Specifications, Plans, and Proposal. The Consultant may be responsible for the sampling and transportation of the materials to be tested by Department personnel, at the request of the Project Engineer Manager.
- C. The Project Engineer Manager shall provide inspection and contract administration of the Project to assure that the Project has been completed in reasonable conformance with the plans and specifications for Project Acceptance and to determine that the inspection work performed to date by the Consultant for Services rendered is reasonable and appropriate before approving the Consultant's requests for progress payments.
- D. The Department shall provide the bituminous plant inspection required for Quality Assurance. The Consultant shall still be responsible for all on-site bituminous inspection required, including, but not limited to, locating the required Quality Assurance cores, sampling bituminous mixture behind the paver, coordinating with the contractor regarding this sampling, and delivery of both the cores and the samples to the Region central bituminous laboratory, Muskegon TSC, or any other designated drop off site.

- E. The Department shall provide the office technician staff to maintain the project files in accordance with MDOT procedures. The Consultant inspector will coordinate with the Department's staff to submit the required documentation, as indicated elsewhere in this Scope of Services.

#### **CONSULTANT PAYMENT:**

All invoices/bills for services will be directed to the Project Manager for review and approval. Payment to the Consultant for Services rendered shall not exceed the "Cost Plus Fixed Fee Not to Exceed Maximum Amount." An increase in this amount may be considered only if there is an increase of overtime or regular hours requested by the Project Manager. Invoices must be submitted to the Project Manager monthly, within **14 calendar days** of the close of the invoice period. No reimbursement for overtime will be made unless prior written approval is made by the Project Manager. In general, payment will not be made for overtime unless consultant personnel work more than 40 hours in the week on this authorization.

The latest copy of "Instructions for Requesting Reimbursement of Contract Costs" is available on MDOT's Bulletin Board system. This document contains instructions and forms that must be submitted for Consultant reimbursement. Payment may be delayed if the instructions are not followed.

The consultant will be required to purchase coolers, ice and cylinder molds to transport the bituminous cores. These items may be charged to the project as a Direct Expense.

The hours billed for the inspector(s), tester(s), and/or staker(s) will not begin until the inspector(s), tester(s), and/or staker(s) reports to the project site, or the project office. Direct expenses will not be paid in excess of that allowed by the Department for its own employees.

This scope is for "as-needed" services, as such, the hours provided are only an estimate. The Consultant will be reimbursed a proportionate share of the fixed fee based on the portion of these hours in which services have been provided to the Department. The fixed fee allowed for this project will be 11.0%.